

It thus appears from Ivy Acres's own website that a coir starter pot is more durable, not less durable, than papier-mache and peat, both of which last for years before decomposing when planted in the soil.

The Ivy Acres website makes a point of the fact that roots, water, and air can penetrate its coir starter pots. This is not because the starter pots readily decompose, but because they are very thin. Applicant's claimed product, on the other hand, is not thin but has a substantial thickness. Rather than the thin wall thickness of a conventional pot, which might be around 3/8 inch, Applicant's pots desirably have wall thicknesses that are at least about three times as thick. Coir pots therefore lack the "substantial thickness" of Applicant's claimed invention.

A coir pot also does not satisfy the requirements of the claims of the present application in another respect, namely, that the walls of the pot be comprised of a "particulate" organic material. Particulate material is formed of distinct particles, not interwoven fibers, as in coir. Typically, the particulate material of the present invention comprises chunks of southern pine bark that are in large part $\frac{1}{4}$ inch in diameter or less (see p. 3, line 4 and p.9, line 16) or rice hulls, both of which are particles, not fibers. Coir, on the other hand, is a fibrous material that typically is formed in woven or non-woven mats and not chunks.

Exemplary product literature from a typical catalog house, Austram, disclosing the use of coconut fiber for pot liners is enclosed. These materials are not a prior art publication but do disclose the characteristics of coir fiber pot liners that are known and are prior art. It is noted in these materials (page 3, paragraph 1) that the fibrous mats "do not absorb water the way that sphagnum moss does and will not compete with the plant for available moisture during times of stress." Further, the plant liners "contain no glue or additives that could potentially counteract the fibres' beneficial effects." (page 3, paragraph 1). These plant liners appear to be different from the Ivy Acres pots, which Ivy Acres says employ a natural rubber adhesive, but they are similar in that

they employ a coir material that contains no nutrients. Also, the Austram catalog indicates, as Applicant has indicated, that the Austram liners, while biodegradable, will last for "three to five seasons" (page 3, paragraph 2).

In the present invention, the thick walls of the plant container are formed by gluing and compressing chunks of southern pine bark or rice hulls, using water responsive glue, preferably guar gum and corn starch, that disintegrates rapidly in the presence of moisture. When this occurs, the walls lose their structural integrity and, in essence, crumble. Thus, the pots of the present invention cannot be used as starter pots by themselves, because as soon as the water penetrates them, they no longer stand up on their own. Starter pots made of papier mâché, peat moss, or (the more durable) coir, appear to hold their shape for a long period of time (three to five years) so they can be used in greenhouses as starter pots without any exterior support. The nature of Applicant's walls, being formed of glued and compressed discreet particles contributes substantially to this product characteristic. Whereas papier mâché, peat, and coir form interlocked pressed fibres, Applicant's product basically loses its structural integrity in a relatively short period of time. As recited in claim 11, this period of time may be as little as one month, whereas the prior art pots last years.

Another important feature of the present invention is the fact that the thick walls incorporate a nutritiously complete growing medium for the young plant. The cited papier mâché, peat moss, and coir starter pots contain virtually no nutrients. Applicant's product employs a thick layer of southern pine bark (or rice hulls), manure, peat, and time-release fertilizers in a known desirable ratio that optimizes plant development. The thick walls of Applicant's pot make it possible for the walls to contain enough nutrients to provide nutritional support for the growing plant until the plant becomes established in the ground, without the addition of special soil and

fertilizer mixtures. As stated in the application (p. 7, ln 22), the walls of Applicant's container can provide the plants with nutrition for up to several months. A thin walled starter pot does not.

Considering the claims in more detail, claims 1-14 have been rejected over Ivy Acres on the basis that Ivy Acres allegedly contains a water responsive glue and that the structure would "necessarily disintegrate rapidly in the presence of water." The Ivy Acres promotional materials suggest that this supposition is not true. As quoted above, Ivy Acres states that its coir pot has held up better than both papier-mache and peat, both of which are long-lived. Austram suggests that its coir pot liners last three to five years. Nor does the reference to "natural rubber adhesive" necessitate a water responsive water or soluble glue, especially if the pot lasts five years.

In addition, claim 1 requires "particulate" organic material, which is different from fibrous material of the type present in coir.

For the foregoing reasons, it is urged that claims 1 and 14 are patentable over the coir starter pot described in the Ivy Acres website.

Claims 2 and 15 have been rejected over the Ivy Acres pot on the ground that Ivy Acres discloses a particulate organic base material in combination with organic ingredients to enhance water retention. This does not appear to be the case. There is no reference in the cited paragraph 3, lines 1-3 of the Ivy Acres literature that suggests that organic ingredients are incorporated in the base material of Ivy Acres or that any such ingredients enhance water retention. There is no disclosure that the walls of the Ivy Acres container contain any nutrients or that they retain water. In fact, the contrary is indicated. The literature indicates that water moves "through the pot." It says nothing about the pot retaining moisture. Nor does the literature say anything about nutrients being incorporated in the walls of the pot. Instead, the nutrients appear to be in the soil deposited inside the pot. This is conventional technology and is different from Applicant's nutrient containing walls.

Nor is there any suggestion in the non-prior art Ivy Acres literature or in the Reis, et al. materials about the use of southern pine bark or other nutrients to form permeable nutritious walls of a plant container.

In rejecting other claims that relate to the water retention capacity of Applicant's plant container, the examiner does not cite prior art but indicates that the features appear to be mere matters of choice. This is not so. Water retention is necessary for proper plant maintenance. If water were to flow through the container, there would not be water in the walls of the container to dissolve minerals and other nutrients in the walls of the container for use by the plant. The ratios specified in the claims are established ratios for good plant maintenance. None of the references show these features, and therefore it is believed that all of the claims relating to the water retention capacities of the present invention are allowable.

With specific regard to claim 11, the examiner asserts that Ivy Acres discloses that the structure breaks down "substantially" in ten days, referring to paragraph 3, line 9. This is incorrect. The Ivy Acres non-prior art literature indicates that, "once planted in the ground, air pruned roots grow again, and robust root growth has been seen after just ten days!" Roots may penetrate the thin walls of the coir pot and then grow again when the pot is planted. This says nothing about the walls of the pot disintegrating in the presence of moisture. As stated previously, it appears that a coir pot lasts a number of seasons and does not break down readily. It is therefore urged that claim 11 is allowable.

With regard to claim 16 and dependant claims, these claims disclose a combination of features, including the specific ingredients of the walls of the plant container of the present invention. None of these features are disclosed in the coir pot of Ivy Acres, and there is no suggestion in any reference about the manufacture of a plant container containing such nutrients or

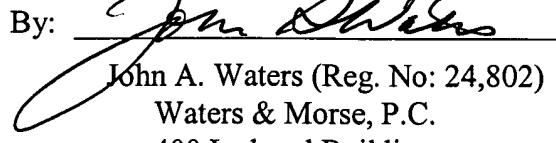
otherwise containing the limitations of these claims. For this reason, it is urged that all of the remaining claims of the patent application are allowable.

In view of the foregoing, allowance of claims 1-19 is respectfully requested.

Respectfully Submitted,

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